

WHAT IS CLAIMED IS:

1. A sheet body holding device for holding a sheet body on an outer periphery of a rotary drum, comprising:

a spindle that rotatably supports the sheet body holding device on the outer periphery of the rotary drum, around which the sheet body is wound; and

one end urged toward the rotary drum, and pressing an end of the sheet body against the outer periphery of the rotary drum, thereby holding the end of the sheet body on the outer periphery of the rotary drum, wherein

the spindle is arranged at a position at which a relationship of  $F_1 < (F_2 \times \mu)$  is satisfied, where  $F_1$  is a component force, in a tangential direction of the rotary drum, of a pressing force of the one end for pressing the sheet body during rotation of the rotary drum,  $F_2$  is a component force of the pressing force in a direction of a center axis of the rotary drum, and  $\mu$  is a coefficient of friction between the sheet body and the outer periphery of the rotary drum.

2. A sheet body holding device according to claim 1, wherein

a center of the spindle is located on a tangent of the rotary drum intersecting a pressing position at which the sheet body is pressed against the rotary drum.

3. A sheet body holding device according to claim 1,  
wherein

a plurality of the sheet body holding devices are arranged  
on the rotary drum.

4. A sheet body holding device according to claim 1,  
wherein

an angle  $\theta$  formed between a line that connects a center  
of the spindle and the pressing position at which the sheet body  
is pressed against the rotary drum and the tangent of the rotary  
drum intersecting the pressing position is acute.

5. A sheet body holding device according to claim 4,  
wherein

the center of the spindle is arranged on a side of the  
outer periphery of the rotary drum relative to the tangent of  
the rotary drum intersecting the pressing position.

6. A sheet body holding device according to claim 4,  
wherein

the spindle is arranged at a position away from the outer  
periphery of the rotary drum relative to a tangent of the rotary  
drum.

7. A sheet body holding device according to claim 4,  
wherein

the spindle is arranged at a position at which the angle  $\theta$  is in the range of  $-15^\circ < \theta < 15^\circ$ .

8. A sheet body holding device for holding a sheet body  
on an outer periphery of a rotary drum, comprising:

a spindle that rotatably supports the sheet body holding  
device on the outer periphery of the rotary drum, around which  
the sheet body is wound; and

one end urged toward the rotary drum, and pressing an end  
of the sheet body against the outer periphery of the rotary drum,  
thereby holding the end of the sheet body on the outer periphery  
of the rotary drum, wherein

an angle  $\theta$  is formed between a line that connects a  
pressing position at which the one end presses the sheet body  
against the rotary drum and a center of the spindle and a tangent  
of the rotary drum intersecting the pressing position, and the  
spindle is located at a position at which the angle  $\theta$  is acute.

9. A sheet body holding device according to claim 8,  
wherein

the center of the spindle is located on the tangent of  
the rotary drum intersecting the pressing position.

10. A sheet body holding device according to claim 8,  
wherein

the center of the spindle is arranged on a side of the  
outer periphery of the rotary drum relative to the tangent of  
the rotary drum intersecting the pressing position.

11. A sheet body holding device according to claim 8,  
wherein

the center of the spindle is arranged at a position away  
from the outer periphery of the rotary drum relative to the  
tangent of the rotary drum intersecting the pressing position.

12. A sheet body holding device according to claim 8,  
wherein

the center of the spindle is arranged at a position at  
which the angle  $\theta$  is in the range of  $-15^\circ < \theta < 15^\circ$ .

13. A sheet body holding device according to claim 8,  
wherein

a plurality of the sheet body holding devices are arranged  
on the rotary drum.

14. A sheet body holding device according to claim 8,  
wherein

the spindle is arranged at a position at which a

relationship of  $F_1 < (F_2 \times \mu)$  is satisfied, where  $F_1$  is a component force, in a tangential direction of the rotary drum, of a pressing force of the one end for pressing the sheet body during rotation of the rotary drum,  $F_2$  is a component force of the pressing force in a direction of a center axis of the rotary drum, and  $\mu$  is a coefficient of friction between the sheet body and the outer periphery of the rotary drum.

15. A method for manufacturing a sheet body holding device that holds a sheet body on an outer periphery of a rotary drum, comprising:

forming a spindle that rotatably supports the sheet body holding device on the outer periphery of the rotary drum, around which the sheet body is wound; and

forming one end which is urged toward the rotary drum and presses an end of the sheet body against the outer periphery of the rotary drum, thereby holding the end of the sheet body on the outer periphery of the rotary drum, wherein

an angle  $\theta$  is formed between a line that connects a pressing position at which the one end presses the sheet body against the rotary drum and a center of the spindle and a tangent of the rotary drum intersecting the pressing position, and the spindle is located at a position at which the angle  $\theta$  is acute.

16. A method according to claim 15, wherein

the center of the spindle is located on the tangent of the rotary drum intersecting the pressing position.

17. A method according to claim 15, wherein the spindle is arranged at a position at which the angle  $\theta$  is in the range of  $-15^\circ < \theta < 15^\circ$ .

18. A method according to claim 15, wherein the spindle is arranged at a position at which a relationship of  $F_1 < (F_2 \times \mu)$  is satisfied, where  $F_1$  is a component force, in a tangential direction of the rotary drum, of a pressing force of the one end for pressing the sheet body during rotation of the rotary drum,  $F_2$  is a component force of the pressing force in a direction of a center axis of the rotary drum, and  $\mu$  is a coefficient of friction between the sheet body and the outer periphery of the rotary drum.

19. A printing plate exposure apparatus comprising a sheet body holding device including:

a spindle rotatably supporting the sheet body holding device on an outer periphery of a rotary drum around which the sheet body is wound; and

one end urged toward the rotary drum, and pressing an end of the sheet body against the outer periphery of the rotary drum, thereby holding the end of the sheet body on the outer periphery

of the rotary drum, wherein

an angle  $\theta$  is formed between a line that connects a pressing position at which the one end presses the sheet body against the rotary drum and a center of the spindle and a tangent of the rotary drum intersecting the pressing position, and the spindle is located at a position at which the angle  $\theta$  is acute.